



Test Questions



Test Questions

- 1. A simple dictionary definition of a metric is a “standard of measurement.”

True *False*

Feedback: “True” is correct. This is the definition provided by *Webster’s Collegiate Dictionary*. Refer to Slide #5.

- 2. Although under review, the existing NASA Agency Contractor Metrics Program is defined in NHB 2340.4A, Contractor Metrics Handbook.

True *False*

Feedback: “True” is correct. Although being revised, NHB 2340.4A sets forth current program guidelines. Refer to Slide #8.

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- 3. As defined in NHB 5340.4A, Contractor Metrics means “The set of data which provides specific measures of contractor performance...”.

True

False

Feedback: “True” is correct. Contractor Metrics is defined this way in NHB 5340.4A, Chapter 1 (Introduction). See Slide #5.



Test Questions

- 4. Which of the following items should be considered in selecting metrics for in-plant surveillance of NASA contractors?

Contract type and requirements

Available Government resources

Existing contractor metrics/tracking systems

All of the above

Feedback: “All of the above” is correct. All three items should be considered. Other factors to consider include the project risks, contractor past performance, and the contractor’s own project management structure. See Slide #13.

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- 5. In establishing a set of contractor performance metrics, it is *always* a good rule of thumb to collect as much detailed data as possible even for areas of no interest; ignore “big picture” metrics.

True *False*

Feedback: “False” is correct. The opposite is a good rule. Establish a set of metrics with only the needed information. Specifically, look for “Big Picture” data. Metric data that correlate several performance aspects of the contractor’s performance is especially helpful. See Slide #35.

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- 6. A contractor's project management operations generally include which of these key activities:
Project management planning and integration
Coordination of contractor functional activities
Contractor program control functions for the project
All of the above

Feedback: “All of the above” is correct. All of the listed items are activities normally conducted by the contractor project management function. See Slide #16.



Test Questions

- **7. Metrics used by a contractor's project management function might be expected to indicate which of the following activities?**
 - Status of cost, schedule, and technical requirements**
 - Key project milestones and events**
 - Corrective action plans and their status**
 - All of the above*

Feedback: “All of the above” is correct. As discussed in this training, all three items are indicators typically expected to be evident in a contractor's project management function. Refer to Slide #17.



Test Questions

- 8. A contractor's contract management function usually involves activities related to estimating and pricing of project Requests for Proposal and proposals.

True

False

Feedback: "True" is Correct. As discussed in this training, contract management is the focal point for contract issues including estimating and pricing activities. Refer to Slide #18.



Test Questions

- 9. The contractor focal point for mandatory government inspection points would normally be found in which of the following contractor organizational functions?

Quality Assurance

Contracts Department

Materials Department

None of the above

Feedback: “Quality Assurance” is correct. The other choices have a supporting role, but Mandatory Government Inspections are typically managed for the contractor by the quality function. Refer to Slide #20.



Test Questions

- 10. Which of the following items would you most likely use as a metric for quality assurance status?

Number of Class I Engineering Change Proposals

Number of overage purchase orders

Project Scrap, Rework, and Repair Trend

Percent of small business contracts

Feedback: “Project Scrap, Rework, and Repair Trend” is correct. This metric provides a top-level status of project quality during a manufacturing phase. It specifically shows the cost of quality for effort (labor and material) when a part is scrapped, reworked to drawing, or repaired to meet the design. See Slide #21.



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- 11. In selecting metrics to support surveillance of contractor quality assurance activities, the area of supplier quality should *not* be considered since this is the prime contractor's responsibility.

True *False*

Feedback: “False” is correct. The area of supplier quality is extremely important since a large percentage of the effort for NASA major projects is subcontracted by the prime supplier. See Slide #21.



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- 12. The contractor's Engineering Department is normally the focus for configuration management and technical analyses.

True *False*

Feedback: "True" is correct. Technical analyses such as Reliability and Configuration Management are logically and routinely the responsibility of Engineering. See Slide #22.



Test Questions

- 13. For surveillance of the contractor's engineering area, which of the following choices would be an appropriate type of metric?

Number of overage contract change orders.

Design Review readiness and status

Monthly delivery schedule

Cost Performance

Feedback: “Design Review Readiness and Status” is the right choice. Engineering indicators should reflect the project design status and progress. This type of indicator includes drawing/specification status, test results, and design review readiness and status. Refer to Slide #23.

Test Questions



- 14. The contractor's manufacturing operations area is totally responsible for the final design activities.

True

False

Feedback: This statement is “False.” Manufacturing is responsible for the production and delivery of hardware/software end items. Engineering has design responsibility. Refer to Slides #22 and #25.

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- **15. Performance indicators used by the contractor's manufacturing operations area should normally reflect production status such as hardware delivery versus contract schedule.**

True

False

Feedback: This statement is “True.” Hardware delivery is a key indicator of manufacturing. Manufacturing is responsible for the production and delivery of hardware/software end items. Refer to Slide #26.



Test Questions

- 16. If you were conducting in-plant surveillance of a NASA prime contractor, what potential sources of performance metrics would you expect to have available?

Contractor-prepared information

Contract-required deliverable data

Mission operations results and analysis

All of the above

Feedback: “All of the above” is the correct choice. As discussed on the training charts for “Sources of Metrics,” four potential sources exist: contractor, contract required, operations, and individually created. See Slide #27.



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- 17. From an in-plant surveillance perspective, performance metrics/indicators are considered “nice to know” information and are generally considered to have little value in verifying satisfactory contractor performance of contract requirements.

True *False*

Feedback: “False” is the correct choice. The opposite of this statement is true. Government in-plant surveillance should definitely rely on metrics to support verification of contract performance to contract terms. See Slide #33.

Test Questions



- 18. To establish a set of metrics for Government use and analysis, you should determine what metrics you need, establish the sources, and keep simple tracking records.

True

False

Feedback: “True” is correct. Slide #35 discusses general steps to establish a set of metrics for government surveillance. The items cited are included.

Test Questions



- 19. The in-plant surveillance of contractors has demonstrated conclusively that there is *not* a need to baseline and validate the metrics chosen for tracking performance.

True *False*

Feedback: “False” is correct. The opposite of this statement is true. It is best to baseline any metrics selected to ensure that data are comprehensive and accurate for their intended purpose. This may include independent assessment. See Slide #36.



Test Questions

- 20. It is very important that performance metric data serve as a catalyst for management review and corrective action of adverse performance trends.

True *False*

Feedback: “True” is correct. If metric data reflect abnormal or unusual trends, the data should be received in the appropriate project forums to assess impacts and initiate corrective action. The key point is to take actions on unusual trends. Refer to Slide #37.

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- 21. A trend chart showing cost and schedule data versus the project plan would be a typical example of a metric for which of the following?
 - Quality Assurance
 - Property Management
 - *Project Management*
 - Engineering

Feedback: The choice of “Project Management” is correct. Refer to the training chart for “Project Management Examples.” Cost and Schedule are expected indicators of contractor project management and not quality, property, or engineering.



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- 22. As discussed in this training, a chart trending the number of open change orders would be an expected performance metric of contract management.

True

False

Feedback: “True” is correct. The contract management area is concerned with the status of contract change orders. Refer to Slide #45.



Test Questions

- **23. Mandatory Government Inspection activity, Material Review Board actions, and Pareto Defect Rates are examples of _____ performance indicators.**

Engineering

Purchasing

Contracts

Quality Assurance

Feedback: The choice “Quality Assurance” is correct. The examples given relate to quality assurance activities. See Slide #46.



Test Questions

- 24. The number of Class I Engineering Change Proposals (ECPs) per month and the number of Major Waivers per month are examples of _____ performance indicators.

Engineering

Purchasing

Contracts

Quality Assurance

Feedback: The choice “Engineering” is correct. The examples given relate to engineering activities. See Slide #50.

Test Questions



- **25. Actual end item deliveries versus the project contract delivery schedule is an example of _____ performance indicators.**

Engineering

Manufacturing Operations

Receiving and Inspection

Quality Assurance

Feedback: The choice “Manufacturing Operations” is correct. The examples given relate to manufacturing activities. See Slide #26.